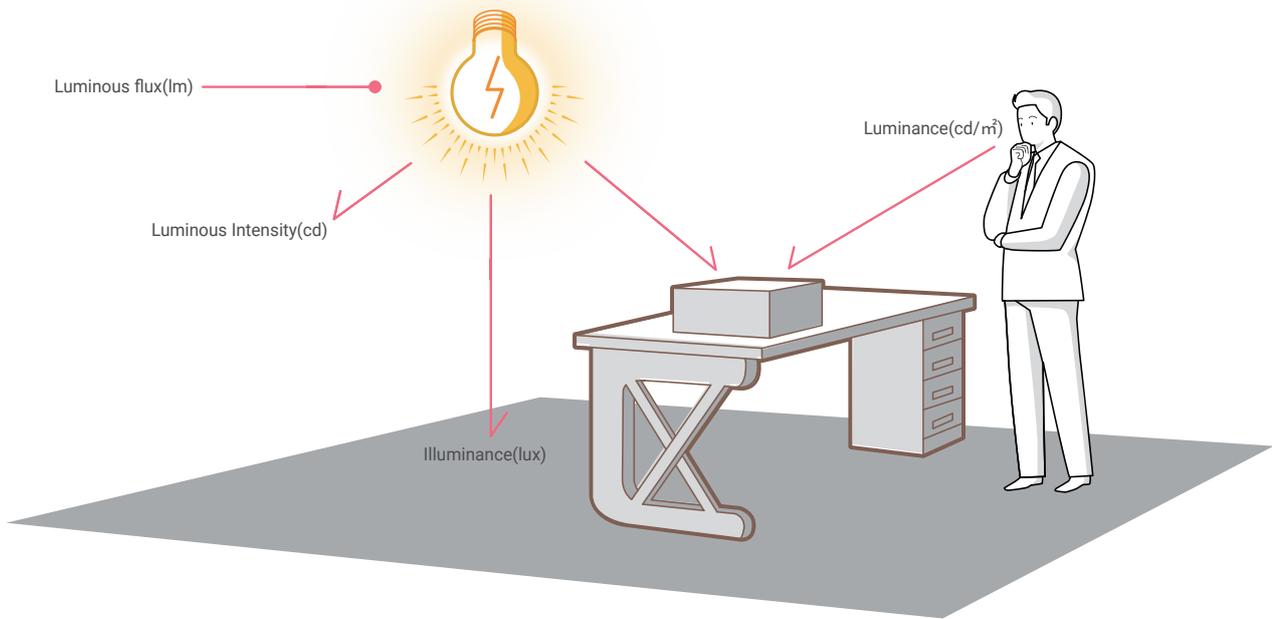




Understanding of Light Terms



Term Definitions and Stated Unit

Illuminance Unit: lux

Illuminance is the total Luminous flux incident on a surface per unit area which is conventionally stated as a unit of lux. Specifically, 1 lux equals the amount of light that falls on a one-square-meter surface that is one meter away from a single candle with light speed of 1lm.

Luminous Intensity Unit: cd

Luminous intensity is a measure of the wavelength-weighted power emitted by a light source in a particular direction per unit solid angle based on the luminosity function(a standardized model of the sensitivity of the human eye). The standard unit of luminous intensity is the candela.

Luminance Unit: cd/m²

Luminance is a measure of the luminous intensity per unit area of light travelling in a given direction. It describes the amount of light that passes through, emitted or reflected from a particular area, and falls within a given solid angle. The standard unit for luminance is cd(luminance intensity per square meter(cd/m²)).

Luminous Flux Unit: lm

Luminous flux is the measure of the perceived power of light. Standard unit of Luminous flux is the lumen (lm). Usually Luminous flux may be understood as the power of light.

Color Rendering Unit: Ra

A color rendering index (CRI) is a quantitative measure of the ability of a light source to reveal the colors of various objects faithfully in comparison with an ideal or natural light source. Numerically, the highest possible CIE Ra value is 100, which would only be given to a source identical to standardized daylight or a body of black color, and its value drops to negative values for some light sources. The higher the CRI value is, the better the color rendering ability is. Light sources with a CRI of 85 to 90 are considered good at color rendering.



High Color Rendering(Ra80)



Low Color Rendering(Ra70)

Light Distribution Curve

Light distribution curve, provides information on how light is emitted from a lamp or light fixture. The diagram represents a section cut through the fixture and shows the intensity of light emitted in each direction. The portion of the graph above the horizontal 90°-270° line indicates light that shines above the fixture (indirect), while the portion of the graph below represents light shining down (direct). The straight lines radiating from the center point identify the angle of the light emitted while the circles represent the intensity.

